REMARKS

In the Office Action mailed August 9, 2007, the Examiner noted that claims 1-13, 15-24 and 26-30 were pending and rejected all claims. No claims have been amended and new claim 31 has been added, and, thus, in view of the forgoing claims 1-13, 15-24 and 26-31 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections are traversed below.

Page 2 of the Office Action rejects all claims under 35 U.S.C. § 103 over Kodialam, Joshi and Beadle '671.

An Interview was conducted with the Examiner and the substance of the Interview is discussed below.

In the Action, the Examiner admitted again that Kodialam was deficient noting: "Kodialam, however does not disclose the cost as being based on delay and number of hops, stream rate, reference rate, predetermined value as an additional cost, and coefficients used to convert delay to number of hops." The Examiner looked to Joshi to fill in missing features.

As discussed with the Examiner, the current interpretations of Joshi by the Examiner, where the Examiner essentially indicates stream rate = speed or transmission delay and reference rate = bandwidth or transmission rate, appear to be inappropriate. We have emphasized below the terms actually used in Joshi for the equivalence that the Examiner is alleging.

First, as can be seen from the text below, Joshi does not use the term speed. Second, transmission or transit delay is a time offset while stream rate is the rate at which a transmission is currently being sent over a path. It is submitted that stream rate is very different from transmission delay,

Second, a channel can have a bandwidth such as a bandwidth that will handle a million bits per second and a reference rate can be set to any rate that will fit within the bandwidth, such as two bits per second. That is, a reference rate can be arbitrary with respect to bandwidth and thus these concepts are not related. It is submitted that bandwidth and reference rate are very different from transmission delay. Likewise, reference rate and transmission rate arte very different.

The text of Joshi referred to by the Examiner particularly states:

In specific embodiments of the invention, transmission requirements for individual routes may include such factors as **transmission bandwidth, transmission**

delay, bit error rate, and the presence or absence of an encryption and decryption capability. In various embodiments of the invention, least cost calculations are based upon the cost of using specific transmission links. Link cost is calculated, taking into account the link bandwidth already allocated for transmission and the total bandwidth capacity of the link. The cost of a route is determined by adding the costs of all links that are contained within such a route.

(See Joshi, col. 2, lines 29-40, emphasis supplied)

The cost of a particular link may be defined in a number of ways. First of all, cost may be determined simply in terms of hop count. Each hop, which is a single internodal link, may be assigned a cost equal to unity. In terms of hop count, the connection cost between nodes in network 10 is equal to the total number of hops. A second approach involves user defined cost. Thus, a user may define a connection cost on the basis of propagation delay, with a specific cost figure assigned to each internodal link. Such a cost may, by way of example, be based upon the physical length of an internodal link. Finally, cost may be defined in terms of transit delay. **Transit delay is the delay experienced by a user data packet at each node in network 10 and is the sum of any processing delay at each node and any queuing delay incurred while the packet is waiting for an outbound internodal link to be established.** Processing delay is constant and queuing delay is based on the total bandwidth of the link and the actual number of packets being transferred on the link at a particular time.

(See Joshi, col. 4, lines 32-51, emphasis supplied)

This text does not teach or suggest "cost is based on delay and number of hops, **stream rate, reference rate,** predetermined value as an additional cost and coefficients used to convert delay to number of hops" of claim 1 and does not appear to teach or suggest "cost = number of hops + α*max (0, (delay-β))*stream rate/reference rate + predetermined value) and where α and β are coefficients to convert delay to number of hops, stream rate is a speed of a distribution stream, and reference rate is expected stream rate" of claim 28.

Withdrawal of the rejection for the above-discussed reason is requested.

As we discussed with the Examiner, the lowest cost route between a source and a destination (client) is forced to be routed through a redistribution server. This changes the lowest cost routing determination to one that is more complicated. On page 4 of the Action the Examiner admitted that Kodialam and Joshi "do not disclose ... routes ...forced to pass through at least one of the redistributions servers from a source, or in other words, force a path through a particular node, such as a redistribution server." On page 4 of the Action, the Examiner looks to Beadle at paragraphs 12 and 44 for this feature and particularly notes the default server as being equated or compared with the redistribution server of claim 1. As discussed with the Examiner, these paragraphs particularly state:

[0012] A system is disclosed for routing different data types along different client-to-network connection path. The system comprises a connection utility at the client, which monitors a data type being transmitted. When a first data type is

being transmitted, the connection utility selects a most optimal (or efficient) connection route for that data type. The connection utility then assigns a next connection route for a second data type with different characteristics and/or routing requirements than the first data type. The routing of different data types along different routing paths is completed in a substantially seamless manner, and the data is re-associated at the destination point so that the sender and recipient do not require knowledge of the selection of different routes to transmit the two types of data. Differences in routing path that are factored into the criteria for selection include: wired versus wireless, level of security, transfer protocol, connection cost, speed, etc.

(See Beadle pages 1-2)

[0044] Server selections frame 503 allows the user to select an option for determining which connection routes to utilize during server connections. Three major routing options, presented as selectable buttons, are available. The selectable buttons of the routing options include select default server button 507, override defaults button 511 and automatic routing button 513. Selection of select default server button 507 (or override defaults button 511) causes a pop-up menu 509 of possible server connections to be displayed. A user may thus select a particular server as the default server and force all connections to be routed to that particular server. When the override defaults button 511 is selected, however, the pop-up menu 509 is utilized to select a primary server and alternate option(s) for routing the connection when the connection via the default server is bad or congested, etc. In a preferred embodiment, when an alternate server route is determined to be more optimal than the default server route, the current default route is automatically replaced within the connections settings by the alternate route. The alternate route is stored by the connection utility as the new default route for use during later connections.

(See Beadle page 4)

Beadle is about routing different types of data by different routes from a server source to a client destination requesting the data. The server and the client being the end points of the routes. The text noted above, particularly paragraph 0044, is about assigning a node as the source of the data, a primary or a default server. As a result, data does not pass through such a server, it originates with the server. In contrast to this, claim 1 particularly recites:

a generation device automatically generating distribution route information, which indicates a plurality of distribution routes to a plurality of clients on the communications network **forced to pass through at least one of the redistribution servers** from a source, based on the information about the communications cost when the streaming data are originated and distributed from the source to the plurality of clients

That is, the claim recites the data passing through the redistribution sever and, in contrast, data of the Beadle default server is source data and therefore does not pass through the default server. As a result, the default server of Beadle is not comparable to redistribution sever and recited in claim 1. See also Beadle, paragraph 0005 where it becomes clearer that the "default server" of Beadle does not correspond to a redistribution server.

Further, as noted above, the Beadle server is a source data node, claim 1 emphasizes that the redistribution servers "copy and branch streaming data at respective branch points in the communication network to multi-cast the streaming data". The Beadle server does not teach or suggest such.

Further, as noted by the Examiner in the Interview, the prior art particularly does not teach or suggest "... distribution routes, which are forced to pass through at least one redistribution server, which distributes streaming data to a plurality of clients" where "the at least one redistribution server, which distributes streaming data to a plurality of clients, based on information pertaining to the cost ...".

New claim 1 emphasizes the features noted by the Examiner in the Interview Summary. Nothing in the prior art teaches or suggests such. It is submitted that this new claim, which is different and not narrower than prior filed claims, distinguish over the prior art.

It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: <u>November 19, 2007</u>   By: <u>/J. Randall Beckers/</u>
                                            J. Randall Beckers
                                            Registration No. 30,358

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501